

FY 1974 RDT&E DESCRIPTIVE SUMMARY

Program Element # 12431F

Title Defense Support Program

Category Strategic Forces

Budget Activity #4 - Military Astronautics and Related Equipment

BACKGROUND AND DESCRIPTION: The Defense Support Program (DSP)

The system provides

to our national command authorities and other designated users. The system also serves these more specific purposes:

ground stations, receive, process, and transmit satellite mission data. The Joint Chiefs of Staff have designated the following organizations as users of the satellite data: Continental Air Defense (CONAD), Aerospace Defense Command (ADC), Strategic Air Command (SAC), National Military Command Center (NMCC), Atlantic Command (LANTCOM), Pacific Command (PACOM), European Command (EURCOM),

RELATED ACTIVITIES:

Defense Satellite Communications System (DSCS) Phase II, 33110F, will provide an alternate communications route. Advanced Airborne National Command Post (AABNCP), 64723F, is a potential user of this program's data.

[REDACTED]

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WORK PERFORMED BY: The Space and Missile Systems Organization (SAMSO) of the Air Force Systems Command (AFSC), Los Angeles, California, has the overall management responsibility for the Defense Support Program (DSP). TRW, Redondo Beach, California, is the prime contractor for the spacecraft and for integration of the satellite. Aerojet Electrosystems Company, Azusa, California, is the prime contractor for the

Western Development Laboratories/Philco Ford, Palo Alto, California, is the prime contractor for the User Display Segment and the Data Acquisition and Communications Segment. Aerojet Electrosystems and IBM, Westlake, California, are responsible for the system's software development. System Development Corporation, Santa Monica, California, is responsible for software integration and software configuration management. The Martin Company, Denver, Colorado, is responsible for the TITAN IIIC booster and Eastern Test Range (ETR) launch support. The Atomic Energy Commission (Sandia Corporation) is responsible for the

The Aerospace Corporation, Inglewood, California provides General Systems Engineering/Technical Direction Support to the DSP System Program Office.

PROGRAM ACCOMPLISHMENTS AND FUTURE PROGRAMS:

1. FY 1972 and Prior Accomplishments: The program provided for the procurement of four Phase I satellites, four Phase II satellites, eight TITAN IIIC boosters, data processing facilities, display equipment for designated users, applicable software, communications and data distribution equipment, and a training facility located at Lowry Air Force Base, Colorado. The training facility will also be used for DSP software development and data processing.

2. FY 1973 Program: The \_\_\_\_\_ satellites have operated as planned. Through 30 November 1972, they have \_\_\_\_\_

Four additional Phase II satellites (total 12) and TITAN IIIC boosters have been authorized for procurement. \_\_\_\_\_

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Phase II satellites will be delivered beginning in February 1973 and approximately every 3 months thereafter. An MSC-40 communications terminal has been installed which will enable Defense Support Program (DSP) data to be transmitted via a Defense Satellite Communications System (DSUS) Phase II communications satellite; thereby providing an alternate communications mode.

The increase in RDT&E funding since the submission of the FY 73 Presidential Budget is required to assess the DSP satellite's capability of surviving to demonstrate the feasibility to develop a method of more rapidly replacing a failed satellite, to assess the system's capability of providing data,

and to provide support to a DSP Augmentation effort. DSP Augmentation will provide a backup capability by making software and hardware changes to other national assets. The added backup capability will reduce the level of required DSP satellite spares.

3. FY 1974 Planned Program:

Expenditures will support satellite modifications and to prepare the satellite for possible universal deployment. Continued development is intended to increase satellite survivability, reliability and to prepare the satellite for possible universal deployment. Funds are included to continue support of DSP Augmentation activities. Effort will continue on the improvement of software and the development of satellite software as well as satellite modifications previously initiated. Funding increases over the FY 73 request provide for continued DSP Augmentation support and for satellite reliability modifications proven necessary by studies conducted during FY 73.

4. Program to Completion: This is a continuing program. The total program funds required have decreased from the FY 73 Descriptive Summary. The reduction in the funding requirement is principally due to a reduction in the number of future replacement satellites because of a longer than expected satellite mean mission duration.

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5. <u>Milestones:</u>	<u>Date</u>	Estimated Cumulative RDT&E Cost to Reach Milestones
		<u>(\$ In Millions)</u>
		336.1
		338.1
		360.7
		363.5
		366.2
		366.2
		382.1
		451.9
		464.4

RESOURCES: (\$ in Millions)

		<u>FY 1972</u>	<u>FY 1973</u>	<u>FY 1974</u>	<u>Additional to Completion</u>	<u>Total Estimated Cost</u>
RDT&E:	Funds	31.6	32.3	50.2	Continuing	Not Applicable
	Quantities					
	Satellite/Boosters	0	0	0		4/1*
Procurement:	Funds	144.5	183.8	47.3	Continuing	Not Applicable
	Quantities					
	Satellite/Boosters	4/7**	4/4	0		8/11**

\* Four satellites and one booster were funded with RDT&E funds prior to FY 1972.

\*\* Four satellites and seven boosters were procured in the combined years FY 72 and Prior.